

**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2095 Paradise Cut

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Paradise Cut	Left	1.45	05/01/2019 05/01/2019	Alberto De Leon

LM Start		Rating **	A	Issue No.	14
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Operations & Maintenance Manuals				
DWR ID	DWR_RD2095_01_s_2013_14				
Comment Code					
Inspector Comment					
The O&M Manual is available at the office.					

No Photos

LM Start		Rating **	A	Issue No.	17
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training				
DWR ID	DWR_RD2095_01_s_2013_17				
Comment Code					
Inspector Comment					
The LMA has current flood fight training and a flood fighting plan.					

No Photos

LM Start		Rating **	A	Issue No.	19
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment				
DWR ID	DWR_RD2095_01_s_2013_19				
Comment Code					
Inspector Comment					
Flood fighting supplies are available on-site at the warehouse.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Paradise Cut	Left	1.45	05/01/2019 05/01/2019	Alberto De Leon

LM Start	0.10	Rating **	M	Issue No.	5
LM End	0.10	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			37.770311 °	37.770311 °
				-121.325884 °	-121.325884 °
DWR ID	DWR_RD2095_01_s_2019_5				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Repair erosion caused by motorcycle traffic.					

Photo 1 of 1 : SP_2019_RD2095_322_5_20190514_00015.jpg



View of landside slope with an erosion area caused by motorcycle riders creating ruts and jumps. (Spring 2019)

LM Start	0.15	Rating **	A/W	Issue No.	10
LM End	0.15	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			37.769997 °	37.769997 °
				-121.325055 °	-121.325055 °
DWR ID	DWR_RD2095_01_f_2015_10				
Comment Code					
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.					
Inspector Comment					
LMA is actively controlling access. The slope appears to be stable and should be monitored for possible erosion.					

Photo 1 of 1 : SP_2019_RD2095_322_10_20190313_00001.jpg



View of the vehicle tracks on the waterside levee slope.

LM Start	0.79	Rating **	M	Issue No.	6
LM End	0.79	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.762679 °	37.762679 °
				-121.318273 °	-121.318273 °
DWR ID	DWR_RD2095_01_f_2018_6				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Paradise Cut	Left	1.45	05/01/2019 05/01/2019	Alberto De Leon

LM Start	0.84	Rating **	M	Issue No.	7
LM End	0.84	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.762013 °	37.762013 °
				-121.318000 °	-121.318000 °
DWR ID	DWR_RD2095_01_s _ 2019_7				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	0.89	Rating **	M	Issue No.	8
LM End	1.45	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.761315 °	37.759237 °
				-121.317743 °	-121.308359 °
DWR ID	DWR_RD2095_01_s _ 2019_8				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Annual vegetation is controlled with a spray program.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Left	3.41	05/01/2019 05/01/2019	Alberto De Leon

LM Start	0.00	Rating **	A	Issue No.	9
LM End	3.41	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.759246 °	37.717755 °
				-121.308296 °	-121.304852 °
DWR ID	DWR_RD2095_02_s_2019_9				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
Annual vegetation is well maintained.					

Photo 1 of 1 : SP_2019_RD2095_323_9_20190514_00020.jpg



Typical view of vegetation on landside slope. (Spring 2019)

LM Start	0.03	Rating **	M	Issue No.	8
LM End	0.03	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.759021 °	37.759021 °
				-121.307945 °	-121.307945 °
DWR ID	DWR_RD2095_02_s_2019_8				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	0.60	Rating **	M	Issue No.	6
LM End	0.60	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.751668 °	37.751668 °
				-121.304302 °	-121.304302 °
DWR ID	DWR_RD2095_02_s_2012_6				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					
There is a small shrub at the edge of the ditch.					

No Photos

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Left	3.41	05/01/2019 05/01/2019	Alberto De Leon

LM Start	0.97	Rating **	A/W	Issue No.	941
LM End	0.97	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.749706 °	37.749706 °
				-121.299237 °	-121.299237 °
DWR ID	DWR_RD2095_02_s_2012_941				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					
There is a dense bush within 20' of the crown on the waterside slope.					

No Photos

LM Start	0.98	Rating **	A/W	Issue No.	940
LM End	0.98	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.749629 °	37.749629 °
				-121.299040 °	-121.299040 °
DWR ID	DWR_RD2095_02_s_2012_940				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					

No Photos

LM Start	1.33	Rating **	M	Issue No.	10
LM End	1.33	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Cracking			37.744904 °	37.744904 °
				-121.297679 °	-121.297679 °
DWR ID	DWR_RD2095_02_f_2018_10				
Comment Code					
CR1 : Monitor and have inspected by geotechnical engineer.					
Inspector Comment					
There is a large crack on the waterside shoulder at a previous erosion repair site. Recommend getting a geotechnical engineer to evaluate the crack.					

Photo 1 of 1 : SP_2019_RD2095_323_10_20190313_00006.jpg



View of cracking on waterside shoulder. Fall 2018.

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Left	3.41	05/01/2019 05/01/2019	Alberto De Leon

LM Start	1.50	Rating **	A/W	Issue No.	12
LM End	1.50	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.742828 °	37.742828 °
				-121.297532 °	-121.297532 °
DWR ID	DWR_RD2095_02_s_2012_12				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					

No Photos

LM Start	1.74	Rating **	A/W	Issue No.	1
LM End	1.77	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.740196 °	37.740196 °
				-121.297662 °	-121.297662 °
DWR ID	RD2095U02RM60.62				
Comment Code					
Inspector Comment					
10/04/2017: The erosion has further expanded toward the levee toe. The berm width has shortened to approximately 14 feet. The erosion also has further lengthened upstream. Vegetation has grown denser at the site.					
07/20/2016: The erosion extended toward the levee toe. The berm width was reduced by approximately five (5) feet.					
08/04/2015: No significant change observed.					
07/02/2014: No significant change observed.					
08/28/2013: No significant change observed.					
09/13/2012: The site has been visited by land survey. The vegetation on the site shows the erosion has not developed significantly from the last survey.					
The site was not visited by boat survey due to the limitation of navigable waterway.					
08/23/2011: No significant change observed.					
9/22/2010: No significant change observed. There is moderate vegetation growth on the berm. Despite the erosion occurring on the berm, corrective action should be taken before the issue becomes severe.					
9/29/2009: Site is immediately downstream of a section of existing rip rap; there is a 20-foot berm remaining; berm will continue to erode unless erosion is mitigated; Site# is the same as RM62.6, LM1.87; recommended for annual assessment, per CES Evaluation 2008 Report 2006: Visited 10/20/06 [2017 Site ID:RD2095U02RM60.62]					

Photo 1 of 4 : SP_2019_RD2095_323_1_20190313_00001.jpg



Looking at the erosion from downstream.

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

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Unit No. 02 San Joaquin River	Left	3.41	05/01/2019 05/01/2019	Alberto De Leon

LM Start	1.74	Rating **	A/W	Issue No.	1 (cont)
LM End	1.77	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.740196 °	37.740196 °
				-121.297662 °	-121.297662 °
DWR ID	RD2095U02RM60.62				
Comment Code					
Inspector Comment					
10/04/2017: The erosion has further expanded toward the levee toe. The berm width has shortened to approximately 14 feet. The erosion also has further lengthened upstream. Vegetation has grown denser at the site.					
07/20/2016: The erosion extended toward the levee toe. The berm width was reduced by approximately five (5) feet.					
08/04/2015: No significant change observed.					
07/02/2014: No significant change observed.					
08/28/2013: No significant change observed.					
09/13/2012: The site has been visited by land survey. The vegetation on the site shows the erosion has not developed significantly from the last survey.					
The site was not visited by boat survey due to the limitation of navigable waterway.					
08/23/2011: No significant change observed.					
9/22/2010: No significant change observed. There is moderate vegetation growth on the berm. Despite the erosion occurring on the berm, corrective action should be taken before the issue becomes severe.					
9/29/2009: Site is immediately downstream of a section of existing rip rap; there is a 20-foot berm remaining; berm will continue to erode unless erosion is mitigated; Site# is the same as RM62.6, LM1.87; recommended for annual assessment, per CES Evaluation 2008 Report					
2006: Visited 10/20/06 [2017 Site ID:RD2095U02RM60.62]					

LM Start	1.74	Rating **	A/W	Issue No.	1 (cont)
LM End	1.77	Issue Type +	Ma	Location *	WS

Photo 2 of 4 : SP_2019_RD2095_323_1_20190313_00002.jpg



Looking at the erosion from upstream.

Photo 3 of 4 : SP_2019_RD2095_323_1_20190313_00003.jpg



Close view of the erosion.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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Reclamation District No. 2095 Paradise Cut

Close view of the erosion.

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Reclamation District No. 2095 Paradise Cut

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Left	3.41	05/01/2019 05/01/2019	Alberto De Leon

LM Start	1.75	Rating **	A/W	Issue No.	15
LM End	1.84	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.740196 °	37.738880 °
				-121.297662 °	-121.298260 °
DWR ID	DWR_RD2095_02_f_2017_15				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Active waterside erosion on San Joaquin River near the end of Wright Road in Tracy, CA. Total length of erosion extends 615. Erosion has extended 15 feet towards levee toe this flood season. Pleasee see attached map and photots. As the high water level receds from the winter storm, we can see more damage to this stie. Erosion is active.					
Site ID No:469					
Site Designation:LMA-296					
Repair Type: Erosion					
Rating:Serious					
Field Date:7/26/2017					
Notes: This is an active erosion site. Zero vegetation within the eroded portion. It may not be quite in the prism now, but lost about 20 ft (horizontally) of bank last year. Saw eddies in the water here also.					

Photo 1 of 3 : LEVAL_SP_2019_469_2348.jpg



Photo 2 of 3 : LEVAL_SP_2019_469_2349.jpg



LM Start	1.75	Rating **	A/W	Issue No.	15 (cont)
LM End	1.84	Issue Type +	Ma	Location *	

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Left	3.41	05/01/2019 05/01/2019	Alberto De Leon

LM Start	1.75	Rating **	A/W	Issue No.	15 (cont)	
LM End	1.84	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	2017 Storm Damage			37.740196 °	37.738880 °	
				-121.297662 °	-121.298260 °	
DWR ID	DWR_RD2095_02_f_2017_15					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:Active waterside erosion on San Joaquin River near the end of Wright Road in Tracy, CA. Total length of erosion extends 615. Erosion has extended 15 feet towards levee toe this flood season. Pleasee see attached map and photots. As the high water level receds from the winter storm, we can see more damage to this stie. Erosion is active.						
Site ID No:469						
Site Designation:LMA-296						
Repair Type: Erosion						
Rating:Serious						
Field Date:7/26/2017						
Notes: This is an active erosion site. Zero vegetation within the eroded portion. It may not be quite in the prism now, but lost about 20 ft (horizontally) of bank last year. Saw eddies in the water here also.						

Photo 3 of 3 : LEVAL_SP_2019_469_2353.jpg



LM Start	2.12	Rating **	A/W	Issue No.	20
LM End	2.12	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.734858 °	37.734858 °
				-121.297758 °	-121.297758 °
DWR ID	DWR_RD2095_02_s_2012_20				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Unit No. 02 San Joaquin River	Left	3.41	05/01/2019 05/01/2019	Alberto De Leon

LM Start	2.38	Rating **	A/W	Issue No.	945
LM End	2.38	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.731313 °	37.731313 °
				-121.298298 °	-121.298298 °
DWR ID	21644				
Comment Code					
Inspector Comment					
FS_ID:19871 DS_ID:21644 EP_NO: N/A Repair Type: No Action Needed Crossing Status: Found UCIP Comments: FIELD_STRUCT_DESC: 8-inch steel drainage pipe through the levee, 3 feet below the crown. Pump in drainage ditch on the landside (LS). Vent pipe at the waterside (WS) toe. 1.5-inch galvanized iron electrical conduit through the levee at the same location. Service pole with a switch box and meter on the LS. [Additional Reference(s): DWR Levee Log, 2005. USACE San Joaquin O&M Manual 11, 1968, (HLM 2.41)]. FS Date: 9/10/2013					

Photo 1 of 2 : UCIP_SP_2019_19871_33778.jpg



Pump on metal pier off LS toe.

LM Start	2.38	Rating **	A/W	Issue No.	945 (cont)
LM End	2.38	Issue Type +	Ma	Location *	

Photo 2 of 2 : UCIP_SP_2019_19871_33777.jpg



Vent standpipe on WS toe.

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Unit No. 02 San Joaquin River	Left	3.41	05/01/2019 05/01/2019	Alberto De Leon

LM Start	2.74	Rating **	M	Issue No.	11
LM End	2.74	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.726205 °	37.726205 °
				-121.299720 °	-121.299720 °
DWR ID	DWR_RD2095_02_s_2019_11				
Comment Code					
T3 : Trim and thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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